Virginia Department of Health
Division of Tuberculosis (TB) Control

TB Infection Fact Sheet

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What is TB?

TB is an infectious disease caused by the bacteria *Mycobacterium tuberculosis*.

TB disease most often affects the lungs, but can occur anywhere in the body. Some types of TB disease are contagious, and some are not. TB diseases of the lung or larynx are contagious.

What are the Differences Between TB Infection and TB Disease?

In **TB infection**, or Latent TB Infection (LTBI), the TB bacteria are in the body but are asleep or inactive.

A person with LTBI usually has a positive TB skin test and a normal chest x-ray. A person with LTBI does not have any symptoms of TB disease; and, this person is not sick and cannot spread TB to others.

LTBI may turn into TB disease. A person with LTBI has a 90% chance of living his/her life without developing TB disease, but a 10% chance of developing TB disease during his/her life. The greatest chance of LTBI turning into TB disease is in the 2 years after becoming infected.

In **TB disease**, the TB bacteria in the body awaken or become active. A person with TB disease is sick and may spread TB to other people.

A person with TB disease has a positive TB skin test, an abnormal chest x-ray (usually) and symptoms of TB disease (coughing for more than 3 weeks, fever, night sweats, fatigue, unexplained weight loss, loss of appetite, and/or others). A person with TB disease needs medication to become well.

Is Medicine Necessary for TB Infection (LTBI)?

In the US, physicians typically prescribe Isoniazid (INH) for TB infection. INH reduces the chances of the TB infection (LTBI) turning into TB disease.

Once the INH therapy starts, it needs to continue for 9 months. Not following this therapy as prescribed might make the TB bacteria resistant to INH, reducing the drug's ability to kill the bacteria. This latter issue is a concern if the LTBI turns into TB disease.

How Does TB Spread?

TB bacteria spread from person to person through the air. TB bacteria must be inhaled in order for infection to occur.

When a person with contagious TB disease coughs, laughs, or sings, s/he releases TB bacteria into the air. These bacteria can remain in the air for many hours. A person who inhales this air may become infected with TB.

A person is more likely to become infected with TB if s/he spends several hours in a poorly ventilated room with a person who is breathing ***out*** a lot of TB bacteria into the air. Examples of persons most likely to become infected with TB include those who share a residence or spend a lot of time with a person who has contagious TB disease.

TB does not spread by casual contact such as kissing, sharing drinking glasses, dishes, or walking in the park.

What Happens if the TB Skin Test is Positive?

If a person's TB Skin Test is positive, the doctor or nurse may prescribe other tests. These tests check if the TB infection is in the lungs. These tests include a chest x-ray and a laboratory analysis of the person's sputum (phlegm or mucous that is coughed-up).

Since TB can occur outside the lungs, other specimen samples such as urine, blood, etc. may be collected and tested.

Who is at Risk for TB Infection?

Risk factors for getting LTBI include contact with a person with infectious TB disease, HIV-positive status, injection drug use, prior residence in a country where TB is prevalent, and residence in a congregated living facility (homeless shelters, migrant farm camps, some nursing homes, prisons/jails, etc.).

Who Should Get Tested for TB?

Only persons with risk factors (see above) for TB should get the TB skin test.

How is TB Infection Detected?

The Mantoux Tuberculin Skin Test (TST) detects TB infection. The TST is given as an injection.

A health care worker administers the TB skin test on the person's arm. Within 48-72 hours (2-3 days) after the test, the health care worker checks the tested area of the arm for a reaction.

The health care worker measures the size of the TB skin test reaction in millimeters. This skin test reaction is typically a raised, hard, swelling-like area on the arm where the injection was given.

The skin test outcome (positive or negative) depends the size of the skin test reaction and the person's risk factors for TB. A positive reaction usually indicates TB infection (LTBI).

What Happens if the TB Skin Test is Negative?

A person's negative TB skin test may mean one or more of the following.

1) Person does not have TB infection.
2) Person got the TB infection within last 10-12 weeks, and the TB skin test cannot detect the TB infection.
3) Person has overwhelming TB disease, and the immune system is not responding.
4) Person cannot react to the TB skin test, because s/he has a compromised immune system.

If a skin test is negative for TB infection, a health care worker will do the following:

- Reviews the person's medical history, exposure to TB, symptoms for TB disease, and/or other risk factors for TB;
- Educates this individual about the negative TB skin test and its possible causes; and,
- May recommend more tests, including a second TST, depending on the person's risk factors for TB.

Flesch-Kincaid Grade Level: *7.8*